

City of Sunnyvale
Ten Year Project Costs
by Project Category and Type

Project Number	Project Name	Prior Years Actual	Revised Budget 2002-03	Plan 2003-04	Plan 2004-05	Plan 2005-06	Plan 2006-07	Plan 2007-08	Plan 2008-09	Plan 2009-10	Plan 2010-11	Plan 2011-12	Plan 2012-13	Ten Year Plan Total	Project Grand Total
Category: Special Type: Sanitary Sewer															
802951	WPCP Records Update	0	0	0	21,224	0	0	0	0	0	0	0	0	21,224	21,224
805500	WPCP NPDES Requirements	1,562,744	150,000	471,600	466,779	457,520	459,381	514,155	0	0	0	0	0	2,369,435	4,082,179
807601	Monitor WPCP Regulatory Requirements	96,968	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	646,968
811601	WPCP Infiltration/Inflow Study	40,000	0	0	0	0	0	0	0	0	0	0	0	0	40,000
819550	Laboratory Information Management System	62,000	62,000	0	0	0	0	0	0	0	0	0	0	0	124,000
822520	Effluent Characterization/Special Test Req. - NPDES Permit	195,000	95,000	0	0	0	0	0	0	0	0	0	0	0	290,000
822530	Regulatory Compliance - Air/Emission Standards Requirements	48,345	48,712	0	0	0	0	0	0	0	0	0	0	0	97,057
822560	Energy Use Audit	75,000	75,000	0	0	0	0	0	0	0	0	0	0	0	150,000
822660	Feasibility Study of Effluent Disinfection Alternatives	125,000	45,000	0	0	0	0	0	0	0	0	0	0	0	170,000
823140	Structural and Infrastructure Assessment at WPCP	75,000	271,663	0	0	0	0	0	0	0	0	0	0	0	346,663
823220	Wastewater Data/Process/Service Assessment Studies	125,000	125,000	127,500	130,050	130,050	132,651	135,304	138,010	140,770	143,586	0	0	1,077,921	1,327,921
824340	Wastewater Cost of Service Study	0	0	0	41,794	0	0	0	46,727	0	0	0	51,131	139,652	139,652
Total		2,405,057	922,375	649,100	709,847	637,570	642,032	699,459	234,737	190,770	193,586	50,000	101,131	4,108,232	7,435,664

Project Information Sheet

Project: 802951 WPCP Records Update

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	1999-00	Phase:	Planning	Project Manager:	Lorrie Gervin
Planned Completion Year:	2004-05	% Complete:	10	Project Coordinator:	Dan Hammons
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

Project 802950 WPCP Records Update Facility Study resulted in the need to update records using Computer Aided Design (CAD) technology. This project will result in bringing all the Water Pollution Control Plant (WPCP) technical drawings to an "as-built" condition, as well as provide for hardware and software to allow easy record maintenance. Project moved to FY 2004/2005.

Service Level

no service level effect

Issues

none

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	0	0	0	21,224	0	0	0	0	0	0	0	0	21,224	21,224
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 805500 WPCP NPDES Requirements

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Lorrie Gervin
Planned Completion Year:	2007-08	% Complete:	n/a	Project Coordinator:	none
Origin:	Board/Commission			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

This project is funded for multiple years to meet mandated requirements of Regional Water Quality Control Board (RWQCB) and to provide process engineering expertise with these funds at the Water Pollution Control Plant (WPCP). These funds are for studies, consultant fees, process engineering expertise and mitigation associated with the permit requirements upon issuance of the new permit at the end of FY 03-04. The plant's National Pollution Discharge Elimination System (NPDES) permit application will be prepared FY 2005/2006 and 2006/2007 and negotiated. There is every reason to believe that the next permit will have similar study requirements as the previous two permits.

Service Level

no service level effect

Issues

Previous contract was not fully budgeted in the CIP. This project budget includes the Effluent Characterization/ Special Test Req. - NPDES Permit project (822520), beginning in FY 2003/04.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	1,779,288	150,000	471,600	466,779	457,520	459,381	514,155	0	0	0	0	0	2,369,435	4,298,723
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 807601 Monitor WPCP Regulatory Requirements

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	1999-00	Phase:	Ongoing	Project Manager:	Lorrie Gervin
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	none
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

Resources necessary to monitor and address potential requirements from regulatory agencies and to take a proactive role in issues greatly impacting the Water Pollution Control Plant's (WPCP) National Pollution Discharge Elimination System (NPDES) permit. This includes, but is not limited to, legal and other forensic or consulting services.

Service Level

no service level effect

Issues

These activities were formerly part of project 807600.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	98,226	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000	648,226
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 811601 WPCP Infiltration/Inflow Study

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	1999-00	Phase:	Planning	Project Manager:	Lorrie Gervin
Planned Completion Year:	2001-02	% Complete:	0	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

Regulatory and legal requirements for collection system integrity at the Water Pollution Control Plant (WPCP) have become more stringent, especially in cases of exfiltration since groundwater contamination is always a concern. Illegal connections and flow are unrecoverable expenses. These funds are for a study of unaccounted flow coming into the WPCP. Work related to this project will be done in cooperation with Project 821030 Sanitary Sewer Condition Assessment Engineering Study.

Service Level

no service level effect

Issues

none

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 819550 Laboratory Information Management System

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	1997-98	Phase:	Planning	Project Manager:	Lorrie Gervin
Planned Completion Year:	2002-03	% Complete:	50	Project Coordinator:	none
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

This project is to study the feasibility of implementing a laboratory information management system. Pretreatment program will be replaced 11/02. Phase II will be the acquisition of a laboratory information system required for electronic data submittal to state regulatory agencies.

Service Level

no service level effect

Issues

none

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	0	62,000	0	0	0	0	0	0	0	0	0	0	0	62,000
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 822520 Effluent Characterization/Special Test Req. - NPDES Permit

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	2001-02	Phase:	Completed	Project Manager:	Lorrie Gervin
Planned Completion Year:	2006-07	% Complete:	95	Project Coordinator:	none
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

Special Project to fund all costs associated with effluent characterization or analytical testing in preparation for NPDES permit re-issuance or as a result of permit amendments or orders issued by the Regional Water Quality Control Board. The existing permit expires on June 17, 2003. The application for permit renewal is due to the Regional Board in December 2002. All testing and monitoring data needed for the permit application is expected to commence July 2001 to be completed by June 2002. Additional funds in FY 2003/2004 and 2004/2005 have been budgeted in the WPCP NPDES Requirements project (#805500). These funds will support special studies and testing required in the 2003 NPDES permits, and the current Watershed Management Initiative discussions which prioritizes the pollutants of concern.

Service Level

Required for regulatory permit compliance. Previous Capital Projects have addressed similar on-going issues over the last 10 years.

Issues

Costs predicted based on anticipated regulatory requirements and past experience with 1988 and 1993 NPDES permits.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	0	95,000	0	0	0	0	0	0	0	0	0	0	0	95,000
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 822530 Regulatory Compliance - Air/Emission Standards Requirements

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	2001-02	Phase:	Implementation	Project Manager:	Lorrie Gervin
Planned Completion Year:	2007-08	% Complete:	0	Project Coordinator:	Kristy McCumby
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

Special Project to fund the re-issuance of the WPCP Title V Air permit using a qualified consultant that will review all regulatory requirements and prepare application package. Establish monitoring and record keeping requirements and implement as needed based on new permit requirements. Operating costs include air monitoring for engine emissions and other testing as required in the permit.

Service Level

Compliance with federal, state and local air regulators.

Issues

Actual costs may vary as air regulatins are issued by the Bay Area Air Quality Management District and EPA.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	173	48,712	0	0	0	0	0	0	0	0	0	0	0	48,885
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 822560 Energy Use Audit

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	2001-02	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2003-04	% Complete:	0	Project Coordinator:	Dan Hammons
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

The existing heat and energy system at the Water Pollution Control Plant (WPCP) was designed and installed nearly 50 years ago. An energy use audit will be conducted in FY 2003/2004 to evaluate the current systems and make recommendations for the most cost effective and reliable system for energy balance.

Service Level

Service Delivery Plan 34203 requires "performing preventative maintenance to reduce unscheduled down time." It also requires "correcting mechanical deficiencies and completing modifications to WPCP equipment and facilities."

Issues

Some of this system was installed in 1958 and additions have been added since. The safe operation of engines, digesters and other process units requiring head circulation and distribution in addition to health and safety of personnel requiring heat in wintertime would be greatly compromised by failure of this system.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	0	75,000	0	0	0	0	0	0	0	0	0	0	0	75,000
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 822660 Feasibility Study of Effluent Disinfection Alternatives

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	2001-02	Phase:	Planning	Project Manager:	John Addeo
Planned Completion Year:	2002-03	% Complete:	0	Project Coordinator:	none
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

Currently the WPCP uses chlorine gas and sulfur dioxide for disinfection of tertiary effluent. Alternative methods and technology has evolved that may allow for safer, more cost effective disinfection. A study would look at those alternatives and pilot test technology and systems to verify actual performance at the Sunnyvale WPCP. This work should be completed in two years. Based on the results of this study & testing, staff will select the appropriate new system to be installed. It is estimated at this time approximately \$100,000 will be required to develop appropriate RFP & Plans & Specifications for implementation of New System. Also an engineer's estimate for construction in current day dollars for a UV system is \$3.6 million.

Service Level

This need would greatly address service delivery plans for 34202 - WPCP Operations and 34206 - By-Products Reuse. The service levels for both SDP's is critically dependent on safety, meeting regulatory standards (100%) and cost efficiency. SDP 34202 outcome statement requires that we "plan new or expanded facilities to maintain National Pollution Discharge Elimination System (NPDES) compliance and to ensure cost effective operations."

Issues

Major issues related with the need to investigate alternate disinfection methods to replace the presently used chlorine and sulfur dioxide systems are safety of plant personnel and the community, consistent regulatory compliance for discharge, consistent compliance for delivery of recycled water and Hazardous Material Handling currently required to Toxic Gas Compliance required for handling chlorine and sulfur dioxide.

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	0	45,000	0	0	0	0	0	0	0	0	0	0	0	45,000
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 823140 Structural and Infrastructure Assessment at WPCP

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	2001-02	Phase:	Planning	Project Manager:	Lorrie Gervin
Planned Completion Year:	2003-04	% Complete:	0	Project Coordinator:	none
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

The infrastructure needs of the Water Pollution Control Plant (WPCP) are not yet fully funded. This project provides for an inventory of infrastructure, as well as condition assessment to determine remaining useful life, replacement costs, and to identify immediate structural rehabilitation needs. There are four specific areas that this project will focus on over a two year period: 1) seismic upgrade of process structure, 2) evaluation of structural conditions, and 3) slide gate replacement. Areas one and two will be completed during FY 2002/2003 and areas three and four will be completed during FY 2003/2004.

Service Level

no service level effect

Issues

none

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	3,337	271,663	0	0	0	0	0	0	0	0	0	0	0	275,000
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 823220 Wastewater Data/Process/Service Assessment Studies

Category:	Special	Type:	Sanitary Sewer	Department:	Public Works
Origination Year:	2001-02	Phase:	Ongoing	Project Manager:	Lorrie Gervin
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	none
Origin:	Staff			Interdependencies:	none
Element:	3 Environmental Management		Goal:	3.3C	
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

This project will fund various wastewater studies at the Water Pollution Control Plant (WPCP) over a ten-year period. These studies include the following:

WPCP Data Management - The WPCP data management systems including the LIMS, Pretreatment, OPTO 22, operational SCADA and Support Services reporting needs shall be addressed.

Consideration of long term maintenance of the system including upgrading requirements and schedule for same to be part of the project.

Plant Process Assessment - This project is a process engineering evaluation to determine WPCP treatment processes for sustainability, cost-effectiveness, and efficiency.

Laboratory Service Study/Market Analysis - Env lab service enhancements and cost efficiencies can be made by increasing the lab's ability to incorporate replacement equipment, methods, and procedures. These improvements will greatly enhance the lab's ability to bring in-house work currently contracted out when it is more cost effective to do so, and vice-versa.

Service Level

no service level effect

Issues

none

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	0	125,000	127,500	130,050	130,050	132,651	135,304	138,010	140,770	143,586	0	0	1,077,921	1,202,921
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 824340 Wastewater Cost of Service Study

Category:	Special	Type:	Sanitary Sewer	Department:	Finance
Origination Year:	2002-03	Phase:	Ongoing	Project Manager:	Tim Kirby
Planned Completion Year:	2004-05	% Complete:	n/a	Project Coordinator:	Kristy McCumby
Origin:	Staff			Interdependencies:	Public Works
Element:	3 Environmental Management		Goal:		
Sub-Element:	3.3 Sanitary Sewer System		Neighborhood:	City Wide	
Fund:	455 Utilities		Sub-Fund:	300 Wastewater Management	

Statement of Need

Every four years the Utilities Division in the Dept of Finance performs a cost of service study on the wastewater system to reallocate the costs of the City's wastewater services among the various customer classes based on their use of each service. Staff works with a consultant to develop a cost of service model or update an existing model with current data. The study generates a cost of service for each customer class and recommends adjustments to the rate structure to ensure costs are recovered on an equitable basis from the different customer classes.

Service Level

none

Issues

none

Project Financial Summary

Financial Data	Prior Years Actual	Revised Budget 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	10 Year Budget	Grand Total
Project Costs	0	0	0	41,794	0	0	0	46,727	0	0	0	51,131	139,652	139,652
Revenues														
Total	0	0											0	0
Transfers-In														
Total	0	0											0	0
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0